What is Claimed is:

1. A computer-readable medium having computer-executable instructions, comprising:

performing ordinary error checking until a system crash of a particular type occurs; and

after the system crash, power on self tests, and initiation of booting to an operating system, executing instructions and automatically performing enhanced error checking, the enhanced error checking performed depending on the particular type of system crash and operating to assist in locating instructions or software components that caused the system crash.

2. The computer-readable medium of claim 1, further comprising:

upon the system crash, storing a stop code that identifies the particular type of system crash; and

after the power on self test and the initiation of booting to an operating system, retrieving the stop code and determining the enhanced error checking to perform based on the stop code.

3. The computer-readable medium of claim 1, wherein the enhanced error checking is performed prior to a user diagnoses related to the system crash.

4. The computer-readable medium of claim 1, wherein the enhanced error checking is performed without a user diagnoses related to the system crash.

5. The computer-readable medium of claim 1, wherein the enhanced error checking comprises checking resource-related operations.

6. The computer-readable medium of claim 5, wherein the resource-related operations comprise allocating and freeing memory.

7. The computer-readable medium of claim 6, wherein checking resource-related operations comprises tracking each allocation and freeing of memory performed by at least one process.

8. The computer-readable medium of claim 5, wherein the resource-related operations are performed by drivers that execute in kernel mode.

9. The computer-readable medium of claim 5, wherein the resource-related operations comprise allocating and freeing page table entries.

10. The computer-readable medium of claim 1, wherein the enhanced error checking comprises checking for memory corruption.

11. The computer-readable medium of claim 10, wherein the memory corruption occurs in memory reserved for kernel processes.

12. The computer-readable medium of claim 11, wherein the memory corruption occurs by a kernel process writing to a block of memory after the kernel process has freed the block of memory.

13. The computer-readable medium of claim 11, further comprising loading a driver verifier to monitor actions of one or more of the kernel processes.

14. The computer-readable medium of claim 13, wherein the driver verifier provides a memory block to the one or more kernel processes, wherein the memory block is marked to remain in memory.

15. The computer-readable medium of claim 14, wherein the memory block is aligned with the end of a page of memory having

a following page, wherein the following page is marked as inaccessible, such that an access to the following page results in an access violation.

16. A computer-readable medium having computer-executable instructions, comprising:

storing information associated with the system crash of a particular type, the information including a stop code that identifies the particular type of system crash;

reading the stop code from the information; and

automatically initiating a diagnostic procedure associated with the stop code, the diagnostic procedure designed to identify an instruction or software component that caused the system crash by collecting data tailored to identifying errors of the particular type that caused the system crash.

17. The computer-readable medium of claim 16, wherein reading the stop code occurs after an operating system begins executing.

18. The computer-readable medium of claim 17, further comprising changing the stop code before initiating the diagnostic procedure to select the diagnostic procedure.

19. A method for determining the cause of a system crash, comprising:

identifying a type associated with the system crash;

rebooting to an operating system after the system crash;

automatically collecting information based on the type as the operating system executes; and

providing the information upon demand.